

Remarks

Claims 2 to 7, 9, 11 and 12 are amended. Claims 1 to 12 are pending in this application of which claims 1 to 7, 9, 11 and 12 are in independent form.

Claims 2 to 9, 11 and 12 were objected to only as being dependent upon a rejected base claim. Accordingly, claims 2 to 7, 9, 11 and 12 are amended to incorporate therein all the features and limitations of claim 1 from which they had depended. Accordingly, these claims should now be in condition for allowance.

Claim 8 is dependent from claim 7 so that this claim too should now be in condition for allowance.

The disclosure is amended on page 10, lines 28 to 30, to conform the same to FIG. 4 of the drawing which showed a solid line for lambda.

Claims 1 and 10 were rejected under 35 USC 103(a) as being unpatentable over Sawada et al. The following will show that claim 1 patentably distinguishes the invention over this reference.

Applicants believe it will be helpful to first briefly review their invention before considering Sawada et al.

The applicants' invention relates to a two-stroke engine wherein a good lubrication of all moveable parts is achieved while at the same time providing good exhaust-gas values. For this purpose, the invention provides that the value of lambda of the air/fuel mixture, which is stored in the crankcase, is adjusted in a range of 0.2 to 0.6. The value of lambda

characterizes the ratio of the air quantity (consumed in the combustion of a kilo of fuel) to the stoichiometrically necessary minimum air quantity, that is, the air quantity theoretically necessary for the chemical conversion. A value of lambda less than 1 means an air deficiency, that is, a rich mixture; whereas, a value of lambda greater than 1 means an air excess or lean mixture.

In applicants' claim 1, the air/fuel mixture, which is stored in the crankcase, is a rich mixture, namely, a mixture having a lambda value in the range of approximately 0.2 to 0.6. The rich mixture in the crankcase deposits on the moving parts in the crankcase and vaporizes whereby a cooling effect results. This rich mixture further causes that fuel deposits in the crankcase and thereby achieves a lubrication of the moveable parts.

Turning now to Sawada et al, the applicants note that this reference is directed to a two-stroke engine wherein low exhaust-gas values are to be obtained. The two-stroke engine is configured as a scavenging engine, that is, air from an air channel is prestored in the transfer channels and, when flowing into the combustion chamber, this prestored air separates the air/fuel mixture, which follows from the crankcase, from the exhaust gases. The mixture is applied to the two-stroke engine in the crankcase. Sawada et al indicates that the ratio of the air, which is prestored in the transfer channels, to the quantity of mixture, which is supplied to the crankcase, should lie in a specific range, namely, between 0.7 and 1.4.

However, Sawada et al provides no indication from which one

could determine whether the mixture, which is stored in the crankcase, is intended to be rich or lean and in which range the value of lambda should advantageously lie. Thus, there is no indication whatsoever in Sawada et al which could lead our person of ordinary skill to the method step set forth in applicants' claim 1 with the clause:

"adjusting lambda (λ) of said air/fuel mixture stored in said crankcase in a range of approximately 0.2 to 0.6." (emphasis added)

With respect to Sawada et al, since our person exercising only ordinary skill does not know from this reference how much fuel is to be supplied to the crankcase together with the mixture, our person of ordinary skill cannot draw any conclusions as to the value of lambda from the proportion of supplied fuel-free air to supplied mixture.

For the reasons advanced above, applicants respectfully submit that claim 1 patentably distinguishes the invention over Sawada et al and should be allowable as should claim 10 which is dependent therefrom.

Reconsideration of the application is earnestly solicited.

Respectfully submitted,



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Date: December 15, 2004